Listing of Claims

1-26. (canceled)

27. (Currently Amended) An in vitro method for increasing the susceptibility of a cell to a DNA-damaging agent, comprising introducing into the cell an antisense ~~oligonucleotide~~ nucleic acid having the sequence of a human Ku70 cDNA in the antisense orientation that specifically hybridizes to a nucleic acid encoding human Ku70 so as to prevent expression thereof, wherein (a) the antisense ~~oligonucleotide~~ nucleic acid introduced into the cell is in an amount sufficient to increase the sensitivity of the cell to heat, chemical, or radiation-induced DNA damage, and (b) the antisense ~~oligonucleotide~~ nucleic acid is introduced into the cell via an adenoviral vector comprising an expression vector encoding the antisense oligonucleotide under the control of a heat shock promoter~~, and (c) the antisense oligonucleotide has the sequence of a human Ku70 cDNA in the antisense orientation~~.

28. (Currently Amended) A method for treating a tumor in a subject comprising administering to the subject by selectively introducing to the tumor an antisense ~~oligonucleotide~~ nucleic acid having the sequence of a

human Ku70 cDNA in the antisense orientation that specifically hybridizes to a nucleic acid encoding human Ku70 so as to prevent expression thereof, wherein (a) the antisense ~~oligonucleotide~~ nucleic acid is administered in an amount sufficient to increase the sensitivity of the tumor to heat, chemical or radiation-induced DNA damage, and (b) the antisense ~~oligonucleotide~~ nucleic acid is introduced into the subject via an adenoviral vector comprising an expression vector encoding the antisense ~~oligonucleotide~~ nucleic acid under the control of a heat shock promoter~~, and (c) the antisense oligonucleotide has the sequence of a human Ku70 cDNA in the antisense orientation~~.

29. (Currently Amended) The method of claim 28, further comprising administering to the subject a DNA-damaging agent.

30. (Currently Amended) The method of claim 29, wherein the DNA-damaging agent is adriamycin, bleomycin or etoposide.

31. (Previously Presented) The method of claim 29, wherein the DNA-damaging agent is ionizing radiation.

32. (Previously Presented) The method of claim 29, wherein the DNA-damaging agent induces double strand breaks.

33. (Currently Amended) A method for treating cancer in a subject comprising selectively introducing to the cancer ~~introducing into~~ in the subject an expression vector encoding an antisense ~~oligonucleotide~~ nucleic acid having the sequence of a human Ku70 cDNA in the antisense orientation, under the control of a heat shock promoter, that specifically hybridizes to a nucleic acid encoding human Ku70 so as to prevent expression thereof, and inducing expression of the antisense ~~oligonucleotide~~ nucleic acid, wherein (a) the antisense ~~oligonucleotide~~ nucleic acid is expressed in the subject's cancer cells in an amount sufficient to increase the sensitivity of those cells to heat, chemical, or ionizing radiation-induced DNA damage, and (b) the expression vector is in the form of an adenovirus~~, and (c) the antisense oligonucleotide has the sequence of a human Ku70 cDNA in the antisense orientation~~.

34. (Canceled).

35. (Currently Amended) The method of claim 33, further comprising directing heat, ionizing radiation, or chemotherapy at the site of cancer.

36. (Currently Amended) The method of claim 33, further comprising applying electric field energy to the site

of cancer.

37. (Previously Presented) The method of claim 36, wherein the electric field energy comprises radiofrequency radiation.

38. (Previously Presented) The method of claim 33, further comprising implanting a reservoir of one or more chemotherapeutic agents near a site of cancer, wherein the chemotherapeutic agents are releasable over a period of time of at least eight hours.

39. (Currently Amended) An expression vector encoding an antisense ~~oligonucleotide~~ nucleic acid having the sequence of a human Ku70 cDNA in the antisense orientation, under the control of a heat shock promoter, that specifically hybridizes to a nucleic acid encoding human Ku70, so as to prevent expression thereof, wherein the expression vector is in the form of an adenovirus ~~and wherein the antisense oligonucleotide has the sequence of a human Ku70 cDNA in the antisense orientation~~.

40. (Previously Presented) A pharmaceutical composition comprising the expression vector of claim 39 and a carrier.